When a major disaster strikes, the ability of local first-response professionals to act in a coordinated manner depends on effective communications. Collaboration and communications among federal departments, as well as provincial and municipal authorities, is key to planning ahead and is critical during times of crisis.

But it’s difficult to know how effectively a communications plan will function under stress without exposing it to a real disaster. Enter Canada’s Centre for Security Sciences (CSS), which brought a nightmare to life for Vancouver’s port ...

A Disaster Unfolds
In the predawn light of a Monday morning in early February, radiation was detected in one of the containers being unloaded at the Port of Vancouver. The instruments available to port authorities indicated that the radiation level being emitted was far beyond the acceptable industrial level. The discovery of a second container also emitting similar levels of radiation suggested the circumstance were more than just chance.

Immediately both containers were parked at an isolated part of the dock. Canadian Border Services Agency (CBSA) personnel decided the situation required that they notify local emergency services as a precautionary measure. A 911 call alerted Metro Vancouver Emergency Communications (E-Comm) of the situation. Within minutes the Vancouver Police Department (VPD) was on the scene followed by Vancouver Fire Department (VFD) which is responsible for the management of hazardous materials. VFD has a specially trained Hazardous Materials (HazMat) team which was mustered to full readiness for handling radioactively hazardous materials. While they were not seen as being needed at the time, the BC Ambulance was notified to go on standby.

CBSA personnel were confirming that the radiation being emitted was way beyond industrial level when it was realized that several people were in what was supposed to be a restricted area of the docks. It was soon realized that the contaminated containers were parked close to a part of the dock that was being used for smuggling illegal immigrants into Canada.

As officials tried to communicate with these frightened people from a distance, one of the containers exploded. It quickly became apparent that the area was contaminated with radioactive material. The illegal immigrants were exposed to dangerous levels of radioactivity as well as being injured by the blast. All federal and Port Authority personnel stepped back to review the

The exercise was designed to test the CBSA's new radiation portal, which monitors radiation levels of cargoes entering the port.
situation. The BC Ambulance Services was summoned to the scene immediately.

The presence of injured, radioactively-contaminated people meant that special procedures had to be followed in their rescue and treatment. The HazMat team was required to suit up so that they could protect themselves as well as provide assistance to any injured person at the site of the explosion. It was necessary to rapidly erect decontamination and medical triage tents where any radioactive dust particles could be removed from the victims and first aid could be provided prior to the victims being transported to local hospitals. A mobile nuclear lab was dispatched to the site with special equipment along with the necessary expertise to run the lab and provide advice and assistance to the appropriate authorities.

A radioactive explosion always results in some contamination of the air quality, which will further contaminate surrounding communities depending on the wind direction. A global warming conference was ongoing at the Vancouver Convention Centre when this incident happened. Intelligence reports indicated that there was a risk that this conference was being targeted by a terrorist organization. Consequently the Federal Radiation Assessment Team (FRAT) was deployed to Vancouver. FRAT was able to do air quality surveys off site to see if there had been a spread of radioactive contamination. If necessary the FRAT people would be responsible for any cleanup of contaminated materials.

Exercise Initial Thunder
The event described above is an account of a scenario named Exercise Initial Thunder (ExIT-08) organized at the Port of Vancouver through the Centre for Security Sciences (CSS). The exercise was designed to test the CBSA’s new radiation portal which monitors radiation levels of cargoes entering the port, and to assess the effectiveness of collaboration and communications among various government authorities.

Commenting on the scenario, CSS Exercise Director Ted Sykes explains that “We developed the story lines for purpose of the exercise. We did not develop them with respect to where the ship came from or where the container may be heading or the flow of the wind that may result in some contamination in nearby communities. We can’t extrapolate too far from the normal. The situation is something we hope will not happen. In the unlikely event that it does happen, exercises like this one prepare us to respond in a more effective and efficient manner.”

Tim Armstrong, Chief Special Operations, Vancouver Fire Department. He says that training exercises are useful because “While we train as a team in responding to hazardous materials, for example, the critical test is seeing how we and our partners in police and ambulance complement each other in a [complex] situation.”

Centre for Security Sciences
The Centre for Security Sciences (CSS) is a joint endeavour in security preparedness between the Department of National Defence, with its military perspective, and Public Safety Canada, which provides the civilian oversight in security matters. CSS assesses security technologies, identifies future trends and facilitates a network of national and international experts in security matters. “We coordinate security-related science and technology responsibilities across nineteen federal departments and agencies,” says Sykes. Describing how the Centre functions he explains that “We have created six science clusters each under the leadership of a department that has the necessary expertise and depth. These clusters are: Chemical (led by Environment Canada); Biological (co-led by Public Health Agency of Canada and Canadian Food Inspection Agency); Radiological-Nuclear (led by Health Canada); Forensics (led by the RCMP); and Explosives (co-led by Transport Canada and the National Research Council). Through these networks we are able to rapidly muster the depth of the expertise resident at the federal level and link it up with academic and industrial centers of excellence around the country should the need arise. Scenarios such as Initial Thunder serve to identify the areas of uncertainty in the various jurisdictional interfaces that we need to iron out.”

Organizing an exercise like ExIT-08 in a country as geographically diverse as Canada is not without its challenges. This particular exercise took fourteen months planning. Professionals working at the federal, provincial and municipal levels of government had to work together. Policy people in the federal and provincial governments formulated scenarios that tested all aspects of such an incident in collaboration with municipal first responders: firefighters, police and ambulance personnel. The island scenarios included the Canadian Forces Maritime Command out of Esquimalt. All parties have to collaborate in appreciating how their jurisdictional, financial and ethical obligations complement each other’s duty in serving to protect Canadians.
Being prepared

Facing a potential emergency situation in the business environment is an uncertain period in the management of an organization. Is it really an emergency? What is expected of me? Do we have an emergency management plan? Where is it? Will it work in this situation? Who is in charge during an emergency? These are some of the questions any manager has to consider when his or her organization is being threatened, assuming they are given the time to think about such questions. The initial management decisions made during the advent of an unexpected situation are critical to the business continuity of the enterprise.

From a government perspective, unexpected catastrophic situations are much more complex; Hurricane Katrina is the leading example. In preparing for such incidents, jurisdictional responsibilities have to be considered among government departments at all levels as well as among federal, provincial and municipal agencies. In the absence of such understanding decision making can be uncertain.

The federal government (Transport Canada) is accountable for what happens on the water. The provincial government has jurisdictional responsibilities for possible impact on lands bordering river banks or coastlines, above and below the sea/river surface, and on or below the sea/river bottom. Planning becomes the critical component in being prepared for such possibilities occurring, particularly when any form of population health impact or environmental contamination are possible.

Understanding these roles is particularly important from the perspective of determining which department is responsible for the allocation of resources (expenditures) and possibly assuming liability during a regional catastrophe. The primary question is: Who is in charge? When there are so many jurisdictional responsibilities involved, determining who gives orders and who carries out the orders can be a complex process.

CBSA Marine Unit

The likelihood of a container arriving in the Port of Vancouver carrying a dirty bomb is very much reduced these days as a consequence of new programs initiated by the CBSA in close collaboration between US border agencies.

In April 2004 CBSA marine security operations established the Advance Commercial Information (ACI) program. Under this program industry must report marine data on all containers destined for Canada to CBSA 24 hours before loading shipping containers at ports of departure. This program provides an intelligence function that assesses the need for inspection of containers prior to their arrival in Canada.

CBSA has a National Risk Assessment Centre (NRAC) that conducts risk assessments on vessels and containers heading for Canada. Decisions are made based on this information about possibly examining a cargo at a foreign port to investigate any potential security threats. The ACI program is part of the Canada-U.S. Smart Border Declaration. Currently the ACI program is only used in maritime security, but plans are in place to expand its application to air, highway and rail transportation gateways and corridors.

In October 2005 CBSA and U.S. Customs and Border Protection (CBP) signed a Container Security Initiative Partnership Arrangement. Under this agreement CBSA officers can travel to foreign ports to assess any security risk associated with a specific container shipment heading for Canada, in collaboration with the country of origin. The purpose of this program is to protect the Canadian public from offshore subversive elements and ensure that the Canadian economy is not unduly affected by subversive activities.
The Canada-U.S. Joint In-Transit Container Targeting at Seaports Initiative serves to achieve maximum effectiveness in identifying high-risk containers at the first point of arrival in North America, and to share important law-enforcement information between America and Canada on both sides of the border through their respective immigration and customs officers.

Under Action Point 18 of the Smart Border Declaration, CBSA officers are stationed at seaports in the U.S. and CBP officers are stationed at Canadian seaports. By working together, Canada and the U.S. can improve container inspection by jointly targeting marine in-transit containers that arrive in Canada or the U.S. en route to the other country. American officials have been stationed at Vancouver, while Canadian officials are stationed in Seattle-Tacoma and Newark. The program simplifies the inspection process and helps avoid duplicate examinations.

Could it Happen in Canada?
The U.S., Spain, UK, India, France, and Indonesia/Australia (at Bali) have all experienced terrorist attacks resulting in horrendous human suffering and property damage. Canada is on a terrorist list of countries to be attacked. The consensus in the Canadian security community suggests that there is some indifference among Canadians about the possibility of a terrorist attack happening in their communities. The suggestion is that Canadians regard themselves as nice people and Canada to be a nice place to live that no one would have cause to attack. But with Canadian troops acquiring a global profile for being involved in combat in Afghanistan, and reports coming out of Toronto about domestic extremist elements threatening Canadian societal institutions and values, these attitudes could change.

A March 2008 CBC report estimates that Canada has spent $24 billion updating its border security and defence since 2001, and this estimate does not include such security costs as are being spent on the Vancouver 2010 Olympics. Until the country experiences a terrorist event, such spending practices will likely be challenged. Unfortunately the situation in the world today is such that government has little option but to invest in planning for such attacks, especially at all ports of entry. In the absence of appropriate accounting of such expenditures, similar to what happens in the UK, taxpayers are fortunate to have agencies like the CBC to question such public spending.

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